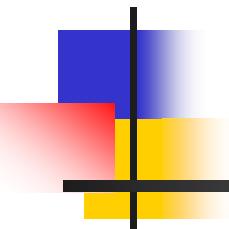




AWC Performance Highlights: 2005



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AWC Forecasts

- Short term (0→24)
- Graphical Area Forecast (GFA)
- Global domain→microscale
- Sensitivity/Importance:
 - observations
 - data assimilation/analysis
 - spin-up, dynamics, (micro)physics
- Models used:
 - GFS
 - NAM-Eta
 - NAM-KF
 - RUC
 - RUC-CP
 - UKMET
- Ceiling (500, 1000, 3000 ft AGL)
- Visibility (1, 3, 5 st mi)
- Mountain obscuration
- Turbulence
- Mountain wave breaking
- Icing
- Freezing level height
- Multiple freezing levels
- Low-level wind > 30 kt
- Vector wind shear $\geq 10 \text{ kt}/100 \text{ ft}$ in lowest 2000 ft AGL
- Convection
- Jet streams
- Tropopause height

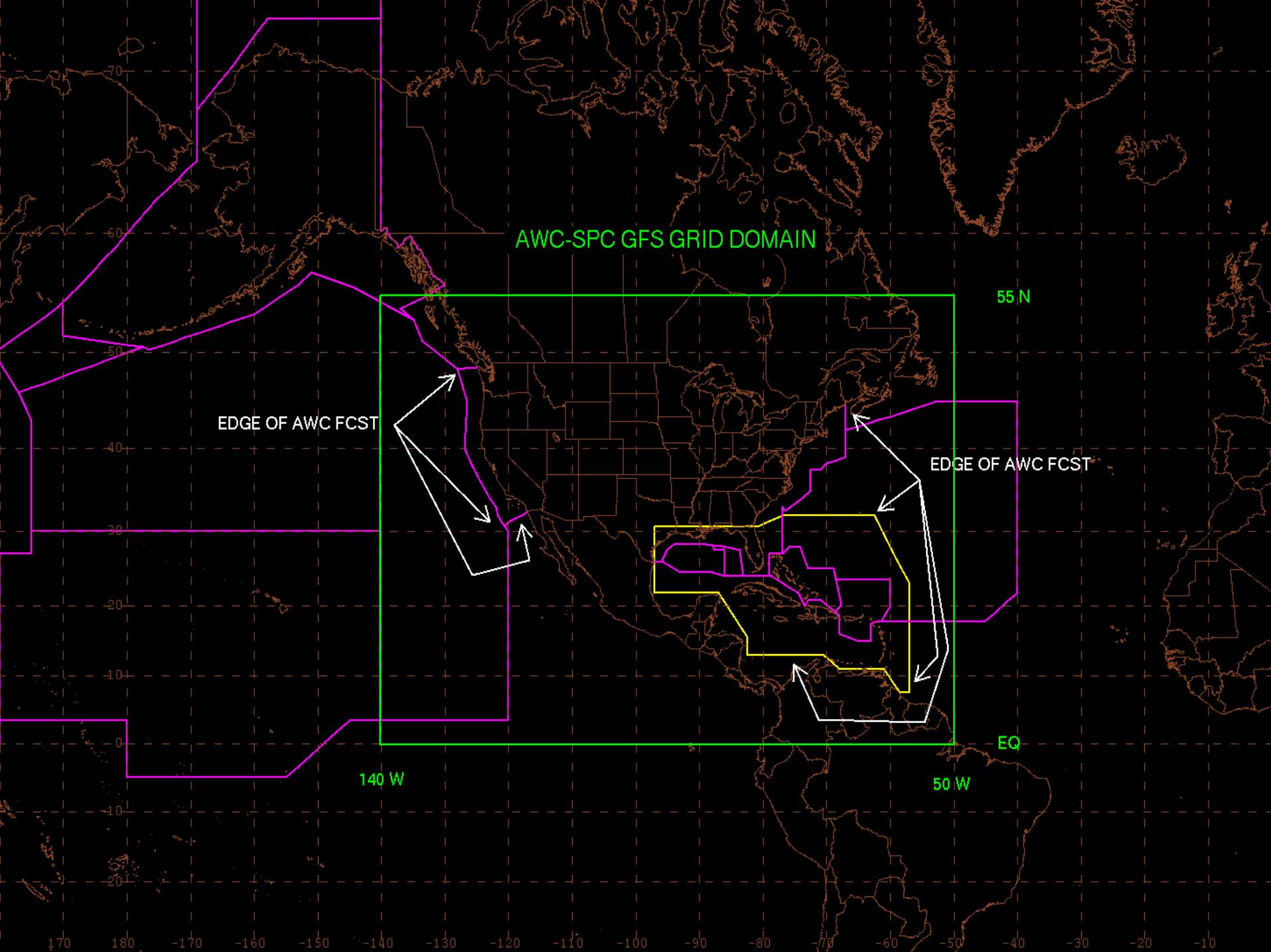




2005 Highlights: The AWC Perspective (1)

- Changing Names:
 - AVN→GFS, Eta→NAM; only 5000 files changed
- Experimental Field Evaluation
 - RUC-Convective Probability
- SREF for Aviation
- GFS grid for AFWA backup of AWC/SPC
- 64 bit Workstations
- NAWIPS development for GFA
- Hi-Res terrain/terrain- σ into NAWIPS



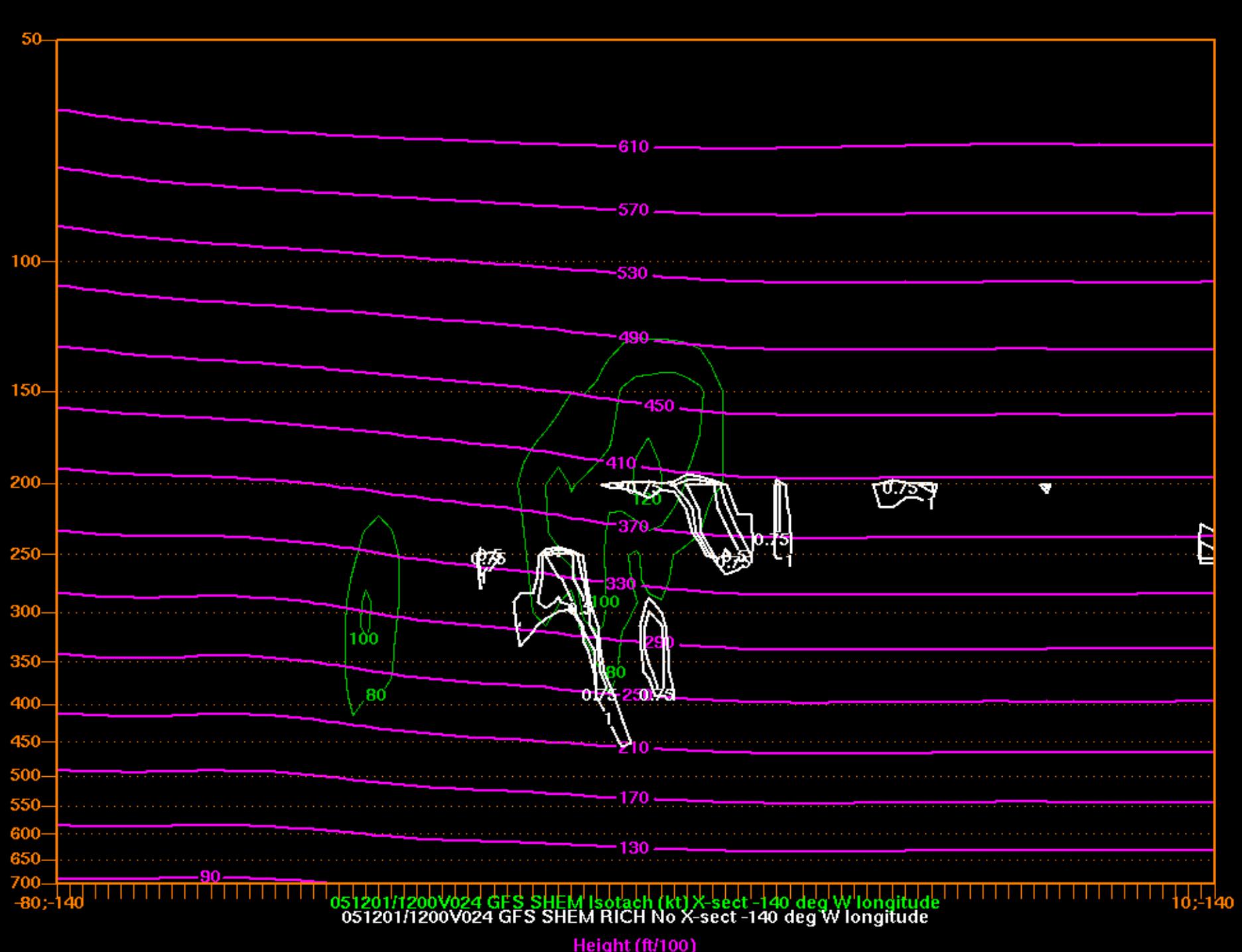




2005 Highlights: The AWC Perspective (2)

- Model Improvements
 - GFS
 - jet stream, turb diagnostics, max wspd level
 - NAM
 - jet stream, turb diagnostics, RH, stability
 - RUC
 - hourly output, jet stream, turb diagnostics, icing, small scale moisture, boundaries
- Real-time evaluations
 - Thank you NCO/PMB/EMC

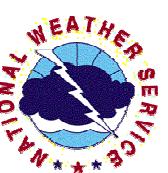






AWC's Graphical Area Forecast: GFA

- Graphical production of Text AIRMET
- 7 forecast parameters
 - IFR CIG/VIS (<1000 ft/3 st mi)
 - Mtn Obsc
 - Turb
 - Icing
 - Strong Sfc Wind (> 30 kt)
 - Low-level Wind Shear (\geq 10 kt/100 ft - lowest 2000 ft AGL)
- Issued every 3 hours
- Valid every 3 h → to F24

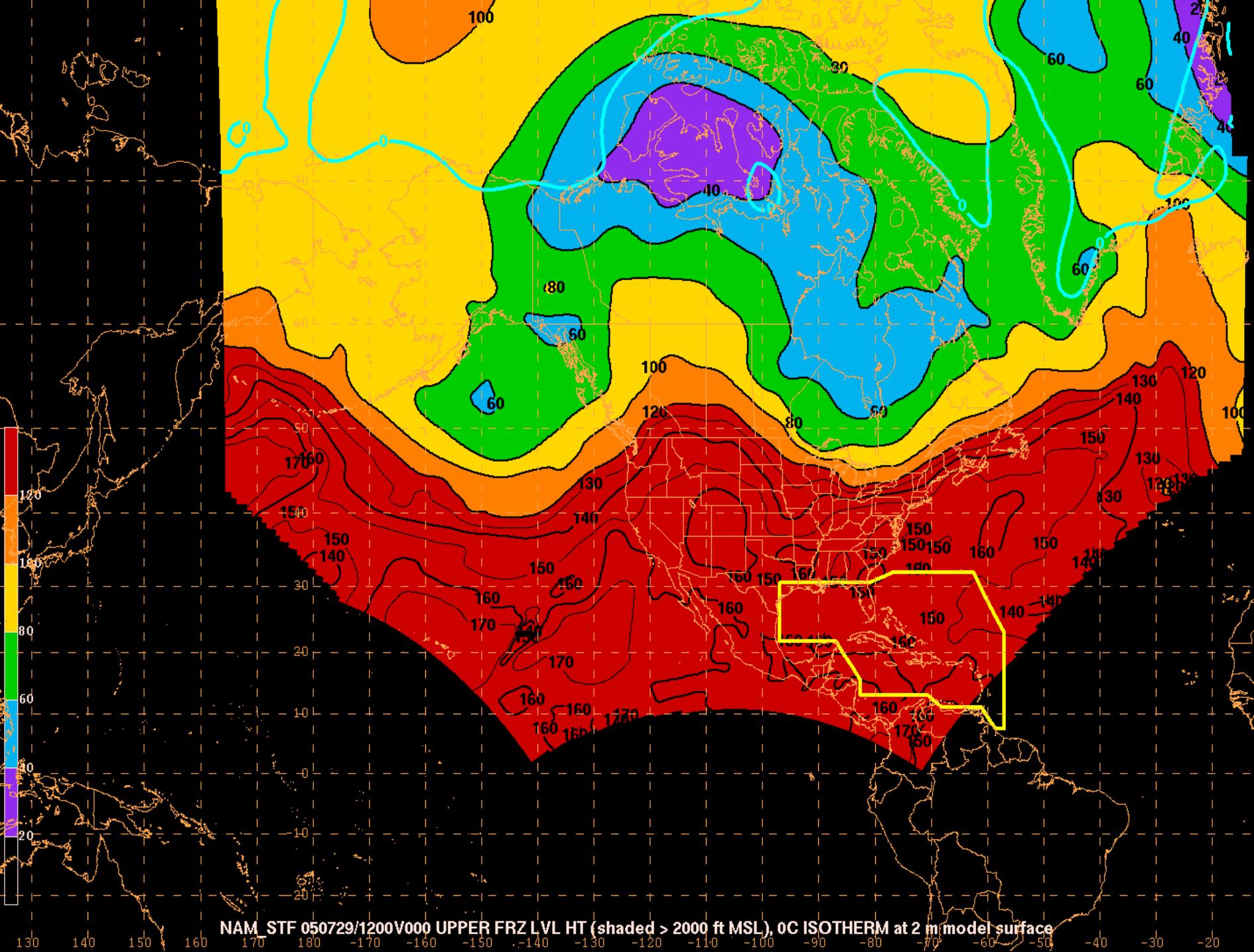




AWC Wish List: 2006

- Common post for all models
 - Aviation SREF, Microphysics
 - Add ICAO Standard Atmosphere Height to post
 - Extend NAM domain → AWC forecast domain
 - Extend on-time RUC to F24: add F15, F18, F21, F24
 - Timely RUC output: Gateway issues (TOC not ticking)
 - Increase diversity in SREF
 - Include RUC, RUC-CP, and NGM (Kuo scheme) convection
 - Continued progress
 - Observations
 - Model data assimilation, (micro)physics, dynamics
 - Computing infrastructure (e.g. bandwidth)
 - 32/64 km NAM access on grid #221
 - Aviation SREF
- More model name changes







Summary

- 2005 Improvements:
 - Models, fields, grids, workstations, NAWIPS
- Improved model diagnostics for aviation
- Real-time parallel evaluations
- Wishing for our 2006 Wish List
- Thank you EMC, NCO, PMB, SIB, HPC, TPC

